

Abstract of the Disclosure

A method of direct metal fabrication to form a metal part which has a relative density of at least 96%. There is provided a
5 powder blend which comprises a parent metal alloy, a powdered lower-melting-temperature alloy that comprises greater than 10% of total weight of the powder blend, and an organic polymer component (a thermoplastic polymer and a thermosetting polymer) that comprises less than 3% by weight of a total weight of the
10 powdered blend. There is a laser-build powder processing operation (a selective laser sintering (SLS) operation) to fabricate a green body. The green body is then placed in a furnace and the temperature raised to sufficiently high temperature to perform a supersolidus liquid phase sintering operation to form the metal
15 part.